## **CLAIMS**

1. The method of using of alkylphosphocholines of the general Formula I and II:

$$R \xrightarrow{(CH_2)_m} X \xrightarrow{Q} O \xrightarrow{R_3} N^{\downarrow} \xrightarrow{R_1} R_2$$

Formula I

Formula II

in which, independently of one another,

n, m, p, z is a whole number between 0 and 4;

X is O, S, NH;

R is hydrogen, a linear or branched C<sub>1</sub> to C<sub>20</sub> alkyl group, which may be saturated or unsaturated with one to three double and/or triple bonds and unsubstituted or optionally substituted at the same or at different carbon atoms with one, two or more halogen, nitro, cyano, hydroxy, C<sub>1</sub> to C<sub>6</sub> alkoxy, amino, mono-(C<sub>1</sub> to C<sub>4</sub>) alkylamino or di-(C<sub>1</sub> to C<sub>4</sub>) alkylamino groups;

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> independently of one another represent hydrogen, a linear or branched (C<sub>1</sub> to C<sub>6</sub>) alkyl group, preferably methyl and ethyl, a (C<sub>3</sub> to CO cyclo alkyl group, which may be unsubstituted or optionally substituted at the same or different carbon

atoms with one, two or more halogen, nitro, cyano, hydroxy, C<sub>1</sub> to C<sub>6</sub> alkoxy, amino, mono-(C<sub>1</sub> to C<sub>4</sub>) alkylamino or di-(C<sub>1</sub> to C<sub>4</sub>) alkylamino groups; for the manufacture of a drug product for the treatment of benign and malignant oncoses before and/or during treatment with an approved antitumor medicament; and pharmaceutically acceptable salts and prodrugs thereof.

## 2. The method of using of compound having the structure of Formula I:

$$R \xrightarrow{(CH_2)_m} X \xrightarrow{Q} O \xrightarrow{R_3} N^* \xrightarrow{R_1} R_2$$

Formula I

where, independently of one another:

n is the integer 1 or 2;

m is the integer 1;

X is O;

R is H or a straight-chain or branched ( $C_1$ - $C_{17}$ )-alkyl group which may be saturated or unsaturated with one to three double and/or triple bonds;

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> are, independently of one another, H or a straight-chain or branched (C<sub>1</sub>-C<sub>6</sub>)-alkyl group, preferably methyl and ethyl, a (C<sub>3</sub>-C<sub>7</sub>)-cycloalkyl group; for the manufacture of a drug product for the treatment of benign and malignant oncoses before and/or during treatment with an approved antitumor medicament.

3. The method of using of alkylphosphocholines of the general Formula II as claimed in claim 1

Formula II

where, independently of one another:

m, p are the integer 1;

n, z are the integer 2;

X is O;

R is H, a straight-chain or branched ( $C_1$ - $C_{17}$ )-alkyl group which may be saturated or unsaturated with one or two double and/or triple bonds;

 $R_1$ ,  $R_2$ ,  $R_3$  are, independently of one another, H or a straight-chain or branched ( $C_1$ - $C_6$ )alkyl group, preferably methyl and ethyl, a ( $C_3$ - $C_7$ )-cycloalkyl group;
for the manufacture of a drug product for the treatment of benign and malignant oncoses before and/or during treatment with an approved antitumor medicament.

- 4. The method of using of octadecyl 1,1-dimethylpiperidinium-4-yl phosphate as claimed in claim 1 for the manufacture of a drug product for the treatment of benign and malignant oncoses before and/or during treatment with an approved antitumor medicament.
- 5. The method of using of alkylphosphocholines of the general formula I and II as claimed in claims 1 to 4, where the approved antitumor medicaments may be

alkylating agents, antimetabolites, plant alkaloids, platinum compounds, tumor antibiotics and agonists or antagonists of natural hormones.

- 6. The method of using as claimed in claim 5, wherein the antitumor medicaments may be cisplatin, cyclophosphamide or Adriamycin.
- 7. The method of using of alkylphosphocholines of the general Formula I and II as claimed in claims 1 to 4, where the approved antitumor medicaments may be inhibitors of signal transduction in the form of high and low molecular weight inhibitors of receptor and/or cytosolic kinases.
- 8. The method of using as claimed in claim 7, where the inhibitors may be monoclonal antibodies or heterocyclic compounds.
- 9. The method of using of alkylphosphocholines of the general Formula I and II as claimed in claims 1 to 8 in a therapeutic dose which is effective for the treatment before and/or during the treatment with an approved antitumor medicament.
- 10. The method of using of alkylphosphocholines of the general formula I and II as claimed in claims 1 to 9, where the approved antitumor medicament is a combination of various cytostatics.
- 11. The method of using of alkylphosphocholines of the Formula I and II as claimed in claims 1 to 4 for the manufacture of a drug product for the treatment of benign and malignant oncoses before and/or during the treatment with an approved antitumor medicament, wherein the drug product comprises the customary pharmaceutical

carriers, excipients and/or diluents in addition to the alkylphosphocholine of the Formula I and II.

12. A drug product comprising at least one alkylphosphocholine of the general Formula I and II and, where appropriate, carriers and/or excipients for use in the treatment of benign and malignant oncoses before and/or during the treatment with an approved antitumor medicament.